CLAIMS

1-58. (Cancelled)

59. (Currently Amended) An iodine injection system for injecting iodine into gas flowing through a nozzle for a laser, the system comprising:

a nozzle having a central axis of symmetry and pair of opposed curved walls defining an area for gas flow there between, the nozzle including:

(a) an inlet defined by the pair of opposed curved walls;

(b) a throat located downstream from the inlet and defined by convergence of the pair of opposed curved walls, from the inlet to a pair of opposite sharp corners, at a point of closest convergence of the opposed walls;

(c) an exit nozzle portion having divergently extending portions of the pair of opposed curved walls extending from the sharp corners of the throat, the divergent extending portions of the pair of opposed walls terminating at a nozzle exit end;

~~(d) an exit plane extending across a gas flow area of the nozzle, between points on the opposed walls of the exit nozzle portion, where tangents to the divergently extending curved walls are aligned with a central axis of the nozzle, the nozzle configured such that gas flowing through the exit plane is substantially uniformly supersonic across the exit nozzle portion at the exit plane;~~ and

at least one curved ~~injection~~ strut located within the nozzle, the curved strut upstream of the exit plane and downstream of the throat~~, the strut configured for injecting iodine uniformly across the gas flow, when gas flows through the nozzle~~; and

a plurality of orifices arrayed along the at least one curved strut, each orifice directed away from the throat of the nozzle toward the laser cavity and each orifice injecting iodine at right angles to a tangent to a curvature of a strut surface at the orifice.

60. (Currently Amended) The iodine injection system according to claim 59 wherein [[the]] gas flowing through the nozzle has a kernel region and the at least one curved strut is located ~~near~~ proximate a downstream end of the kernel region.

61. (Previously Presented) The iodine injection system of claim 60 wherein a downstream edge of the kernel region is located between 10% to 50% of the distance from the throat to the exit plane.

62. (Previously Presented) The iodine injection system of claim 59 wherein the strut is located within 20% to 90% of the distance between the nozzle throat and the exit plane.

63. (Previously Presented) The iodine injection system according to claim 59 wherein a carrier gas is injected with the iodine.

64. (Previously Presented) The iodine injection system according to claim 63 wherein the carrier gas is helium.

65. (Previously Presented) The iodine injection system according to claim 63 wherein the carrier gas is nitrogen.

66. (Cancelled)

67. (Cancelled)

68. (Withdrawn) The iodine injection system according to claim 59 wherein the strut further comprises a heating element.

69. (Currently Amended) The iodine injection system according to claim 59 wherein [[the]] gas flowing through the nozzle [[is]] comprises oxygen.

70. (Currently Amended) An iodine injection system for injecting iodine into a gas flowing through a two-dimensional nozzle for a laser, the system comprising:

a nozzle ~~symmetrical about a central axis, and having a curved nozzle body, the nozzle body~~ comprising a nozzle body having a throat, the nozzle having an inlet portion at one end of [[a]] the

throat, and an outlet portion at an opposite end of the throat, ~~the inlet portion extending divergently from a sharp corner of the throat, and the outlet portion extending divergently from the sharp corner of the throat,~~ the outlet portion bounded by opposed continuous convex walls of diminishing curvature as a wall distance from the throat increases, curvature of the walls approaching a straight line~~, parallel to the central axis of the nozzle,~~ proximate a terminal end of the outlet portion; ~~and~~

at least one curved injection strut located within the outlet portion of the nozzle and downstream of the throat~~, the strut comprising~~; and

a plurality of orifices ~~therein~~ arrayed on the at least one curved strut, each orifice ~~configured for~~ injecting iodine into the flow of gas at right angles to a tangent to a curvature of a strut surface at the orifice, when the system is in use~~;~~

~~wherein, when gas flows through an exit plane, located proximate the terminal end of the outlet portion transverse a path of gas exiting from the outlet portion of the nozzle, the gas flows through the exit plane at supersonic and substantially uniform velocity~~.

71. (Currently Amended) The iodine injection system according to claim 70 wherein the nozzle has a kernel region and the strut is located ~~near~~ proximate a downstream end of the kernel region.

72. (Previously Presented) The iodine injection system of claim 70 wherein a downstream edge of the kernel region is located between 10% to 50% of the distance from the throat to the exit plane.

73. (Previously Presented) The iodine injection system of claim 70 wherein the strut is located within 20% to 90% of the distance between the nozzle throat and the exit plane.

74. (Previously Presented) The iodine injection system according to claim 70 wherein a carrier gas is injected with the iodine.

75. (Previously Presented) The iodine injection system according to claim 70 wherein the carrier gas is helium.

76. (Previously Presented) The iodine injection system according to claim 70 wherein the carrier gas is nitrogen.

77. (Withdrawn) The iodine injection system according to claim 70 wherein the strut further comprises a heating element.

78. (Currently Amended) The iodine injection system according to claim 70 wherein [[the]] gas flowing through the nozzle [[is]] comprises oxygen.